



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,647	06/02/2007	Hans- Joachim Faika	02316.2430USWO	2987
23552	7590	11/01/2007	EXAMINER	
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903				LAM, HUNG Q
ART UNIT		PAPER NUMBER		
2883				
MAIL DATE		DELIVERY MODE		
11/01/2007		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/591,647	Applicant(s) FAIKA ET AL.
	Examiner Hung Lam	Art Unit 2883

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 31 August 2006.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-14 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-14 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 31 August 2006 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 08/31/2006 .

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) Notice of Informal Patent Application

6) Other: _____ .

DETAILED ACTION

Status of the Application

Claims 1-14 are pending in this application.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on August 31, 2006 was filed in compliance with the provisions of 37 CFR 1.97. The examiner has considered the information disclosure statement.

Priority

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in Application No. 10591647, filed on August 31, 2006.

Drawings

The drawings submitted on August 31, 2006 are accepted as part of the formal application.

Specification

The specification is accepted as part of the formal application.

Applicant cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

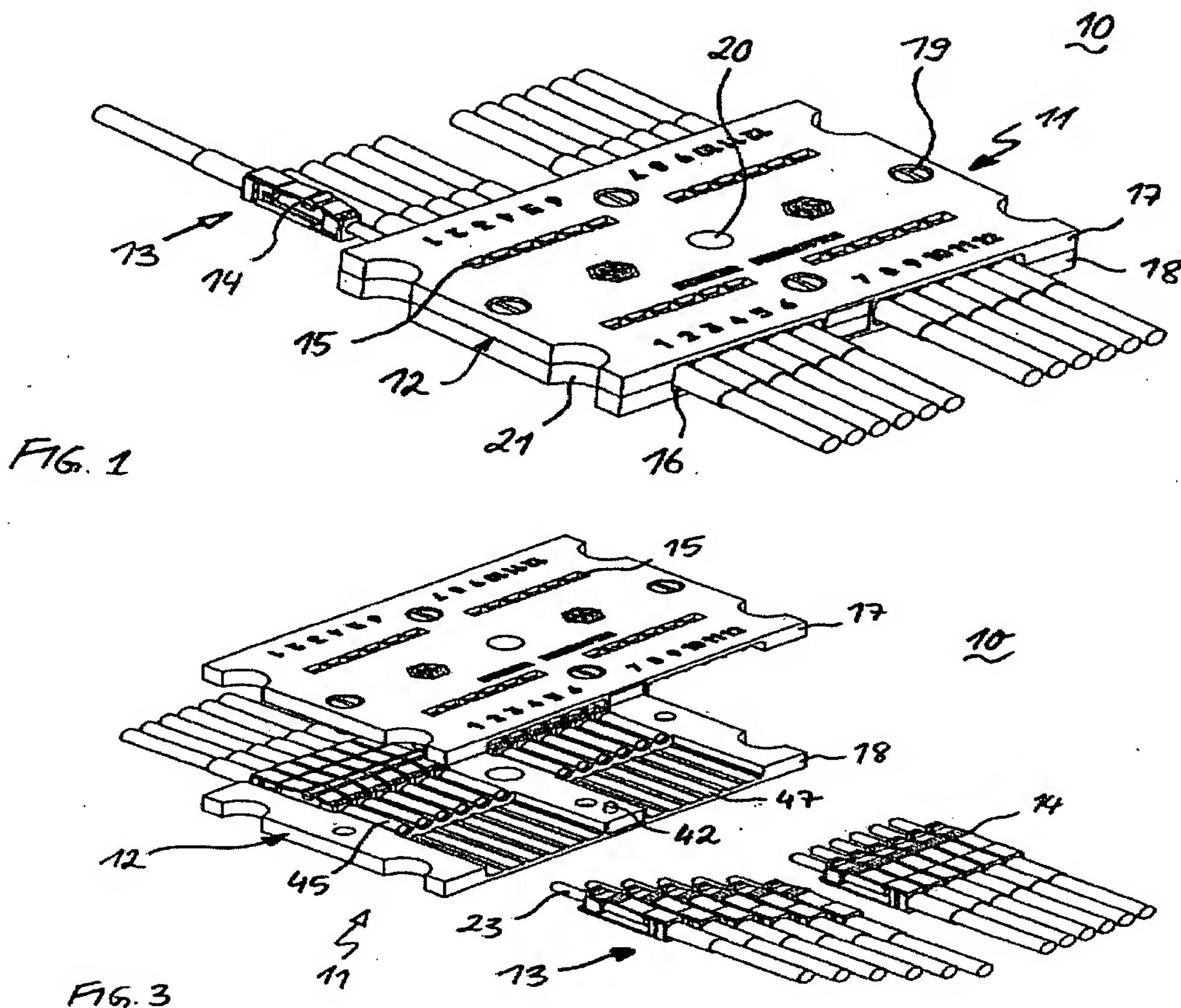
A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

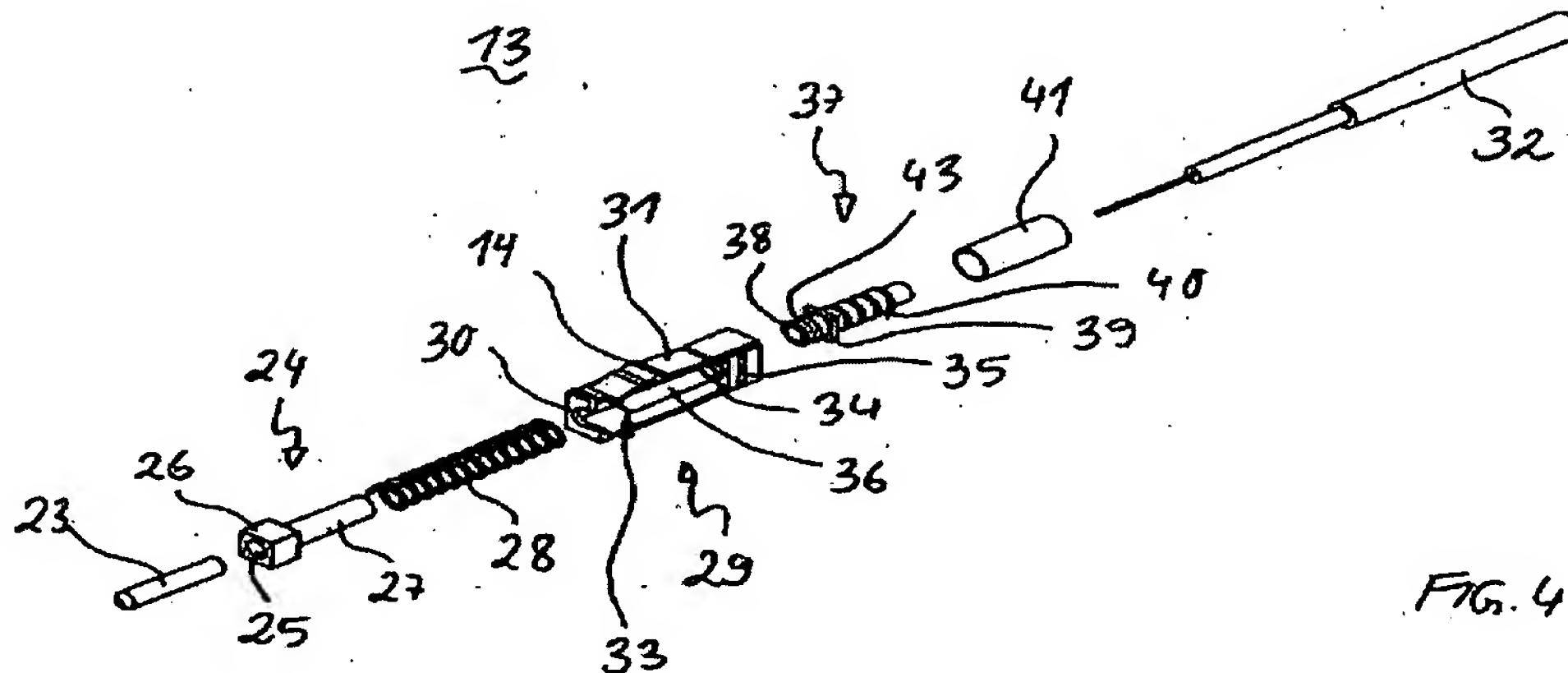
Claims 1-2, 4-6, 8 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by **Eigenmann et al.** (US. Pub. 2005/0135753)

Regarding claims 1-2 and 6, Eigenmann et al anticipate an optical fiber plug-in connection system 10 comprising at least one pair of plug-in connectors 13 (from both sides of plug-in connection system 10) and a coupling 11 each plug-in connector 13 having a ferrule 23 and the two ferrules 23 of a pair of plug-in connectors 13 respectively being detachably guided and aligned with respect to each other within a guiding sleeve 45, and the coupling respectively having a receptacle with opening 16 and guiding grooves 47 for each plug-in connector 13 of a pair of plug-in connectors wherein the coupling 11 comprises a single component or housing 12 (“Abstract”, Fig. 1 and Fig. 3).



Reproduced from US. Pub. 2005/0135753

Regarding claims 4 and 5, in accordance with the rejection of claim 1, Eigenmann et al further anticipate wherein each plug-in connector 13 further comprises a compression spring 28, and a ferrule flange 26, which has a square and a ferrule extension 27 which guides the compression spring 28, and further the coupling has a sleeve receptacle with bores (a middle section of housing 12 which host the guiding sleeves 45) corresponding to the number of pairs of plug-in connectors 13 to be received, the bores serving for the protected reception of the guiding sleeves 45, which are accommodated with lateral play in relation to the walls of the bores (See Fig. 3 and Fig. 4).



Reproduced from US. Pub. 2005/0135753.

Regarding claims 8 and 9, in accordance with the rejection of claim 1, Eigenmann et al further anticipate the plug-in connectors 13 are each provided with an arresting part 29, a compression spring 28, and a ferrule flange 26, which has a square, wherein the compression spring 28 is pushed over the ferrule flange 26 and mounted between the square 26 and the arresting part 29 and wherein the compression springs 28 ensure the required compression force between the ferrules 45 of a pair of plug-in connectors 13, wherein a number of plug-in connectors 13 are connected to one another by means of the arresting parts 29 to form a single multiple plug-in connector 13 (Fig. 3 and Fig. 4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill

in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 3 and 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eigenmann et al. (US. Pub. 2005/0135753)

Regarding claim 3, in accordance with the rejection of claim 1, **Eigenmann et al** disclose the claimed invention except for the coupling is produced from plastic. Since applicant has not provided any particular criticality to this limitation in the invention, it would have been obvious to the one having ordinary skill in the art at the time the invention was made to fabricate the coupling/housing with plastic, since it has been held to be within the general skill of a worker

in the art to select a known material on the basic of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. The motivation for doing so because plastic is an easy handled material in fabricating such connector components with relatively low cost. This rejection may be overcome by a showing of unexpected results.

Regarding claim 10, in accordance with the rejection of claim 1, **Eigenmann et al** further disclose that the coupling/housing 12 is assembled by a crews 19 that inserted into through bores 22 (Fig. 2), but do not expressly teach a number of couplings are connected to one another, lying one on top of the other, by means of screws inserted into the through-bores on the coupling. Since applicant has not provided any particular criticality to this limitation in the invention, it would have been obvious to the one having ordinary skill in the art at the time the invention was made to connect numbers of coupling one to another by lying one on top of the other, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. And also since it has been held that forming in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U. S. 164 (1893). The motivation for doing so is to produce a compact optical plug-in connection system with space saving which provides a plurality pairs of connectors. This rejection may be overcome by a showing of unexpected results.

Regarding claim 11, in accordance with the rejection of claim 1, **Eigenmann et al** disclose the claimed invention except for fibers with either a primary coating with a typical diameter of 245 μ m or with a secondary coating with a typical diameter of 900 μ m. Since applicant has not provided any particular criticality to this limitation in the invention, it would

have been obvious to the one having ordinary skill in the art at the time the invention was made to have fibers with either primary or secondary coating with a typical diameter of 245 μ m or 900 μ m, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesh*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980).

The motivation for doing so is just a design choice in fabricating fiber in order to ensure confining all the light propagating inside the fiber. This rejection may be overcome by a showing of unexpected results.

Regarding claim 12, in accordance with the rejection of claim 1, **Eigenmann et al** disclose the claimed invention except for a flanged ferrule of an SFF plug-in connector type with a cylindrical ferrule of a diameter of 1.25 mm. Since applicant has not provided any particular criticality to this limitation in the invention, it would have been obvious to the one having ordinary skill in the art at the time the invention was made to select a cylindrical ferrule of the flange ferrule has a diameter of 1.25 mm, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesh*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980). The motivation for doing so is just a design choice in selecting the diameter of the cylindrical ferrule as to ensure the compatible with the guiding sleeve in the coupling/housing. This rejection may be overcome by a showing of unexpected results.

Regarding claim 13, in accordance with the rejection of claim 1, **Eigenmann et al** disclose the claimed invention except for ferrule end faces of the ferrules are preferably provided with one of a PC or UPC polish, or an APC polish. However, it would have been obvious to the one having ordinary skill in the art at the time the invention was made to select one of those

polish types above in polishing an end face of any ferrule of connector. The motivation for doing so is because those polish techniques are well known in the art as to make sure the connector having a good contact at the end surface in order to reduce signal loss.

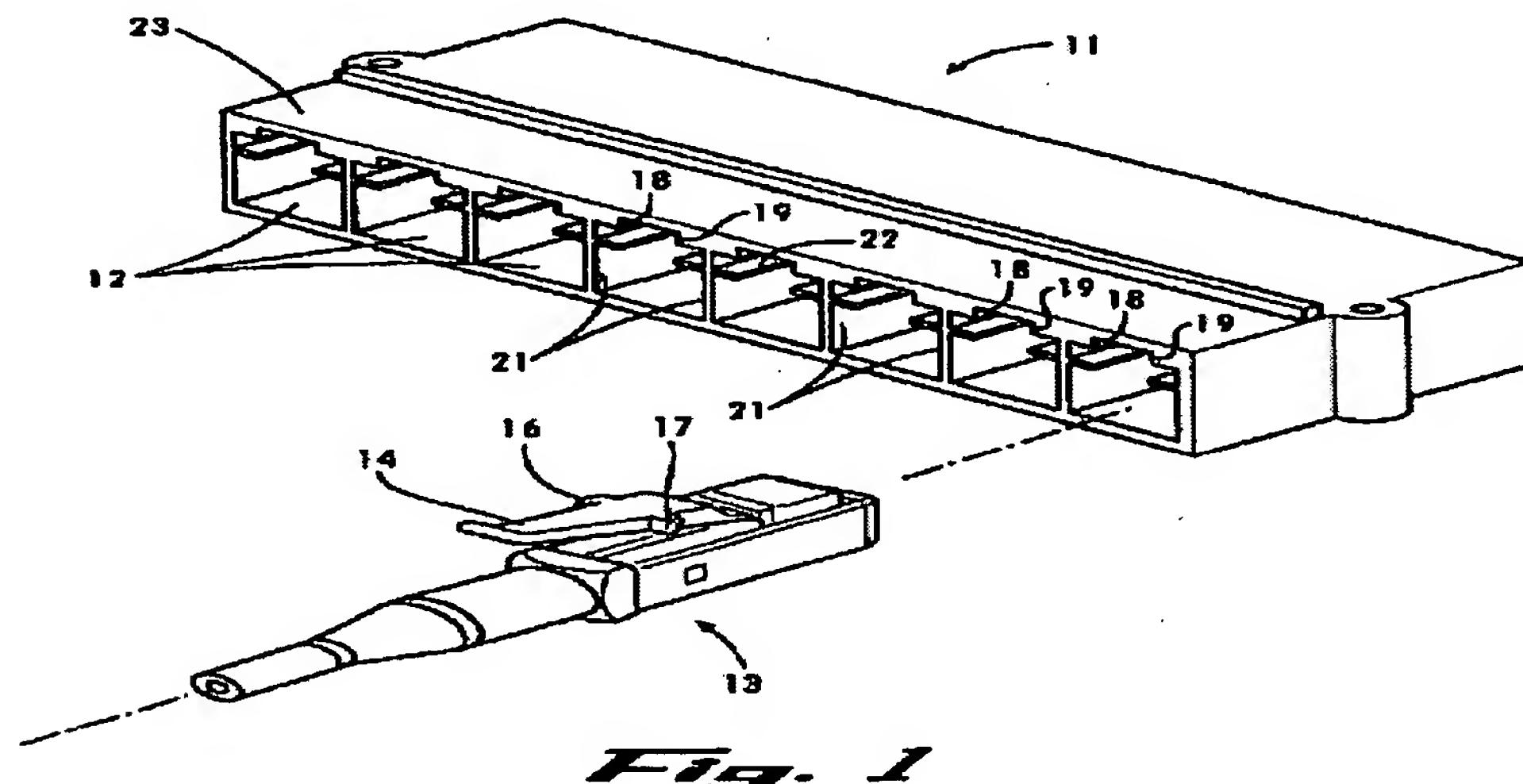
Regarding claim 14, in accordance with the rejection of claim 1, **Eigenmann et al** disclose the claimed invention except for optical fibers of the plug-in connectors to be connected are either single-mode or multi-mode optical fibers or optical fibers of the HCS (Hard Clad Silica) type. Since applicant has not provided any particular criticality to this limitation in the invention, it would have been obvious to the one having ordinary skill in the art at the time the invention was made to select either single-mode or multi-mode optical fibers or optical fibers of the HCS (Hard Clad Silica) type, since it has been held to be within the general skill of a worker in the art to select a known material on the basic of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. The motivation for doing so is just a design choice of system compatibility by selecting a right type of fiber with a reasonable cost. This rejection may be overcome by a showing of unexpected results.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Eigenmann et al** in view of **Anderson et al.** (US. Pat. 56,932,514).

Regarding claim 14, in accordance with the rejection of claim 1, **Eigenmann et al** disclose the claimed invention except for each plug-in connector has an arresting part with a T-shaped attachment which engages in the guiding groove of the coupling. However, **Eigenmann et al** only disclose the each plug-in connector has an arresting part with a non T-shaped

attachment/latching arm 14 which engages with latching opening 15 in the guiding groove 47 of the coupling/housing 12.

Anderson et al. teach a high density panel connector housing for coupling plurality connectors together from both side of the connector coupling housing, wherein each plug-in connectors 13 has a T-shaped latching arm 14 (col. 4 lines 30-35, and Fig. 1).



Reproduced from US. Pat. 56,932,514.

It would have been obvious to the one having ordinary skill in the art at the time the invention was made to modify the attachment/latching arm 14 of **Eigenmann et al** the T-shaped latching arm 14 of **Anderson et al.** The motivation for doing so is provide a latching means to connectors that easy latch and unlatch connector from the connector coupling/housing.

Cited Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Schmalzigaug et al. (US. Pat. 6811321).

Margolin (US. Pat. 4432602).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Lam whose telephone number is 571-272-9790. The examiner can normally be reached on M - F 07:30 AM - 05:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on 571-272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Hung Lam,
Assistant Examiner
Tel.: 571-272-9790



Frank G. Font
Supervisory Patent Examiner
Technology Center 2800